

**What is claimed is:**

1. A semiconductor wafer, comprising:

a surface, and

a pressure measurement device supported on said surface of said

5 semiconductor wafer.

2. The semiconductor wafer of claim 1, wherein:

said pressure measurement device includes a capacitor.

10 3. The semiconductor wafer of claim 2, wherein:

said capacitor includes (i) a first metal plate, (ii) a second metal plate, and  
(iii) a dielectric interposed said first metal plate and said second metal plate.

4. The semiconductor wafer of claim 2, further comprising:

15 a protective layer supported on said surface of said semiconductor wafer  
so that said capacitor is interposed said protective layer and said surface of said  
semiconductor wafer.

5. The semiconductor wafer of claim 3, further comprising:

20 a channel defined in said protective layer such that said channel is in fluid  
communication with (i) said first metal plate of said capacitor and (ii) an area  
external to said channel.

6. The semiconductor wafer of claim 2, further comprising:

capacitance measurement circuitry supported on said surface of said semiconductor wafer, said capacitance measurement circuitry being electrically coupled to said capacitor;

capacitance to pressure conversion circuitry supported on said surface of said semiconductor wafer, said capacitance to pressure conversion circuitry being electrically coupled to said capacitance measurement circuitry; and

pressure data storage circuitry supported on said surface of said semiconductor wafer, said pressure data storage circuitry being electrically coupled to said capacitance to pressure conversion circuitry.

7. The semiconductor wafer of claim 6, further comprising:

current time circuitry supported on said surface of said semiconductor wafer, said current time circuitry being electrically coupled to said pressure data storage circuitry.

8. The semiconductor wafer of claim 6, further comprising:

transmitter circuitry supported on said surface of said semiconductor wafer, said transmitter circuitry being electrically coupled to said pressure data storage circuitry.

9. An arrangement for measuring pressure, comprising:

a semiconductor wafer;

a capacitor supported on said semiconductor wafer;

capacitance measurement circuitry supported on said semiconductor

5 wafer, said capacitance measurement circuitry being electrically coupled to said capacitor; and

capacitance to pressure conversion circuitry supported on said semiconductor wafer, said capacitance to pressure conversion circuitry being electrically coupled to said capacitance measurement circuitry.

10 10. The arrangement of claim 9, wherein:

said capacitor includes a first metal plate and a second metal plate,

said first metal plate being spaced apart from said second metal plate so as to create a void interposed said first metal plate and said second metal plate.

15 11. The arrangement of claim 10, wherein:

said void interposed said first metal plate and said second metal plate is a vacuum.

20 12. The arrangement of claim 9, further comprising:

a protective layer supported on said semiconductor wafer so that said capacitor is interposed said protective layer and said semiconductor wafer.

13. The arrangement of claim 12, further comprising:

a channel defined in said protective layer such that said channel is in fluid communication with (i) an exterior surface of said first metal plate of said capacitor and (ii) an area external to said channel.

5

14. The arrangement of claim 9, further comprising:

pressure data storage circuitry supported on said semiconductor wafer, said pressure data storage circuitry being electrically coupled to said capacitance to pressure conversion circuitry.

10

15. The arrangement claim 14, further comprising:

current time circuitry supported on said semiconductor wafer, said current time circuitry being electrically coupled to said pressure data storage circuitry.

15

16. The arrangement of claim 15, further comprising:

transmitter circuitry supported on said semiconductor wafer, said transmitter circuitry being electrically coupled to said pressure data storage circuitry.

17. A method of fabricating a semiconductor wafer, comprising:

(a) subjecting said semiconductor wafer to a pressure; and

(b) measuring said pressure said semiconductor wafer is subjected to with a pressure measurement device supported on said semiconductor wafer.

5

18. The method of claim 17, wherein:

said pressure measurement device includes (i) a capacitor, (ii) capacitance measurement circuitry electrically coupled to said capacitor, and (iii) capacitance to pressure conversion circuitry electrically coupled to said capacitance measurement circuitry, and

(b) includes converting a capacitance of said capacitor to a pressure with said capacitance to pressure conversion circuitry.

19. The method of claim 17, further comprising:

(c) storing said pressure in pressure data storage circuitry supported on said semiconductor wafer, said pressure data storage circuitry being electrically coupled to said capacitance to pressure conversion circuitry.

20. The method of claim 17, further comprising:

(d) transmitting a signal indicative of said pressure to a receiver with transmitter circuitry which is (i) electrically coupled to said capacitance to pressure conversion circuitry and (ii) supported on said semiconductor wafer.